Algorithm & Data Structures Notes

* Dynamic Programming (DP)
  + Used for shortest paths, making decisions, optimizations (finding min and max)
  + Algorithm design technique
  + DP = Careful brute force
  + DP = subproblems + “re-use”
  + DP = recursion + memorization + guessing
    - Memorize(remember) & re-use soutions to subproblems that help solve the problem
    - Time = # of subproblems \* (time/subprob)
    - DP only works with acyclic graphs (DAG)
    - Don’t count recursions
  + Fibonacci
  + Shortest paths
  + Bottom-up DP algorithm (opposite of memoization):